

I claim:

1. A self-contained hand-held pupilometer for measuring pupillary response of a test subject to light stimulus, said pupilometer comprising:

- a hand-held sized binocular-type housing with two eyepiece locations laterally spaced at the back of said housing for positioning generally aligned with the subject's eyes;

- one of said eyepiece locations opening into and establishing visual communication with the interior of said housing;

- optical-electronic means located in said housing for (i) generating a pupillary response-inducing light stimulus, (ii) directing the light stimulus through said open eyepiece, and (iii) generating a signal indicative of the response of the pupil aligned with said open eyepiece location to said light stimulus;

- microprocessor-based control means located in said housing and operably connected to said optical-electronic means for (i) controlling the operation of said optical-electronic means, (ii) receiving and processing said signal, and (iii) storing pupillary response data generated therefrom; and

- a battery located in the housing connected to supply power to said optical-electronic means and said control storage means.

2. A pupilometer as defined in claim 1 in which the other of said eyepiece locations is closed to prevent visual communication with the interior of said housing.

3. A pupilometer as defined in claim 1 further comprising flexible eyecup means surrounding said eyepiece locations and extending rearwardly from the back of said housing for assisting with alignment of the subject's eyes with said eyepiece locations and for generally isolating the subject's eyes from outside light.

4. A pupilometer as defined in claim 1 further comprising a data-communication port operably connected to said control means for data communication with external apparatus.

5. A pupilometer as defined in claim 1 further comprising a first switch positioned for actuation by one of the subject's fingers or thumb of one of the subject's hands to initiate testing of the subject's pupillary response to said light stimulus.

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6. A pupilometer as defined in claim 5 further comprising a second switch positioned for actuation by one of the subject's fingers or thumb of the other of the subject's hands to initiate testing when both switches are actuated.

7. A pupilometer as defined in claim 1 in which said control means is further adapted for comparison of the response data with a baseline data schedule stored in the instrument and for the determination of the presence and absence of a specific condition in the test subject according to the baseline data schedule, said pupilometer further comprising means located in said housing and connected to said control means for indicating the presence and absence of said condition in the test subject.

8. A pupilometer as defined in claim 7 in which said indicating means includes light emitting diodes.

9. A pupilometer as defined in claim 1 in which said control means is further adapted to receive and store test identification data, said pupilometer further comprising means located in said housing and operably connected to said control means for inputting said test identification data.

10. A method for measuring pupillary response of a test subject to light stimulus, said method comprising the steps of:

- providing a self-contained hand-held pupilometer comprising a hand-held sized binocular-type housing with two laterally spaced eyepiece locations, one of said eyepiece locations opening into and establishing visual communication with the interior of said housing;

- aligning said eyepiece locations generally with the subject's eyes;

- measuring the response of the one pupil associate with said one eyepiece location to a light stimulus projected therethrough;

- flipping the pupilometer 180 degrees such that the subject's other pupil is generally aligned with said one eyepiece location; and

- measuring the response of said other pupil to a light stimulus projected through said one eyepiece location.

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11. A method as defined in claim 10 further comprising the steps of

- providing a manually operable switch located in said housing, said switch being operably connected for initiating said measuring steps;

- actuating said switch with one of the subject's fingers and thumb of one of the subject's hands to initiate said measuring step associated with said one pupil; and

- actuating said switch with one of the subject's fingers and thumb of the subject's other hand to initiate said measuring step associated with said other pupil.

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